GRAHAM BLYTH

Graham Blyth, Soundcraft's co-founder and Technical Director, has taken the well established and classic Soundcraft microphone preamplifier to a new level of performance, resulting in the new GB30 preamp which boasts extraordinary clarity with exceptionally controlled overload characteristics.

Soundcraft's legendary 4-band EQ has also been improved further with the addition of elements derived from Soundcraft's highly successful MH Series consoles. This new design delivers the sound of the classic 'British EQ' enhanced even further with more focused HF and LF shelving sections.

Soundcraft Registered Community Trade Mark/RTM No. 000557827

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This equipment complies with the EMC Directive 89/336/EEC

Part No: ZL0627-04

A Harman International Company

TYPICAL SPECIFICATIONS

Frequency Response	Mic/Line Input to any output, 20Hz - 20kHz	<1dB
THD + N	Mic sens. -30dBu, +20dBu at all outputs @1kHz	<0.006%
Noise	Measured RMS, 22Hz to 22kHz Bandwidth	
	Mic E.I.N. @ unity gain,150Ω source impedance	-128dBu
	Mix Output, 40 inputs routed to mix	<-82dBu
	Group & Centre Outputs	<-83dBu
	Aux Outputs (GB2 Groups only)	<-80dBu
	Matrix Outputs	<-89dBu
Crosstalk (@1kHz, typical)	Input Channel Mute	<-97dB
	Input Fader cut-off	<-95dB
	Pan isolation	<-75dB
	Mix route isolation	<-97dB
	Group route isolation	<-97dB
	Adjacent channel crosstalk	<-99dB
	Group to Mix	<-84dB
	Aux Send pots offness (typical)	<-84dB
	Matrix Send pots offness (typical)	<-84dB
CMRR	Typical @ 1kHz	80dB

PLEASE NOTE: GB2R noise, crosstalk and CMRR specifications exceed the standard GB Series specifications, please check the website for full details

Input & Output Max Levels	Mono & Stereo Mic Inputs	+15dBu
	Mono & Stereo Line Inputs	+30dBu
	Stereo Returns & Insert Returns	+20dBu
	Any output	+20dBu
	Nominal Operating Level	0dBu
	Headphone Power	2 x 250mW into 200Ω
Input & Output Impedances	Mic Inputs	2kΩ
	Line Inputs and Stereo Returns	10kΩ
	Input channels Insert Return	5kΩ with EQ in, otherwise 3kΩ
	Mix, Group, Aux, Matrix & Direct outputs	150Ω
	Insert sends	75Ω
	Recommended Headphone Impedance	100 - 600Ω
High pass filter (Mono input)		100Hz, 18dB per octave
EQ (Mono input)	HF	13kHz, +/-15dB, 2nd order shelving
	Hi-Mid	550Hz-13kHz, +/-15dB, Q=1.5
	Lo-Mid	80Hz-1.9kHz, +/-15dB, Q=1.5
	LF	80Hz, +/-15dB, 2nd order shelving
EQ (Stereo input)	HF	13kHz, +/-15dB, 2nd order shelving
	Hi-Mid	2.5kHz, +/-15dB, Q=0.8
	Lo-Mid	450Hz, +/-15dB, Q=0.8
	LF	80Hz, +/-15dB, 2nd order shelving
Metering	Input channels (GB4/GB8)	Single tri-colour 4-segment LED bargraph
	Outputs (GB4)	7 tri-colour 12-segment LED bargraphs
	Outputs (GB8)	11 tri-colour 12-segment LED bargraphs, + Meterpod with 3 VU meters (L/R/C)
	Outputs (GB2/GB2R)	2 tri-coloured 12-segment LED bargraphs, (indicates monitor source level)
Power consumption	AC mains supply (internal PSU) 85V-270V AC, 50/60Hz universal input	
	Power consumption	Less than 150W
Operating conditions	Temperature range	-10°C to +30°C
	Relative humidity	0% to 80%

Note: These figures are typical of performance in a normal electromagnetic environment and are often exceeded. Performance may be degraded in severe conditions. All measurements refer to electronically balanced inputs and outputs.

GB2R
GB2
GB4
GB8

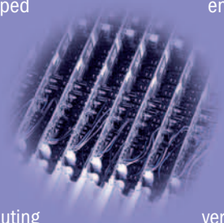
PROFESSIONAL
MIXING CONSOLES

THE FULLY PROFESSIONAL LIVE SOUND CONSOLE YOU THOUGHT YOU COULDN'T AFFORD

GB8

Drawing on 30 years of Soundcraft experience, GB Series consoles set new standards in professional live sound mixing on a budget. The GB8 (8-bus) console is packed with the features you need to create a memorable FOH and monitor mix, combining totally re-engineered circuit topology with our ground-breaking GB30 mic preamp and EQ designs to deliver a sonic performance rivalling many high-price, high-end consoles.

The GB8 has plenty of bus power for sophisticated mixing applications. All eight Aux master controls can be swapped with eight Groups, and all Auxes are pre/post switchable globally per Aux bus from the Master Section. In addition to the eight Groups, the GB8 has L/C/R and eight Aux busses. Four mute groups provide quick and easy muting of groups of channels, ideal for scene changes or where groups of instruments need to be silenced. And the output matrix is essential when different zones in a venue require specifically tailored mixes, enabling the operator to create sub-mixes of the Group, L-R mix and C (mono) busses.



Unlike other mixers in their class, GB Series consoles are built to last with a rigid steel chassis, high quality vertically mounted PCB channel strips and individually nutted potentiometers ensuring reliability in both fixed installations and on the road.

And because Soundcraft understands the way that live sound engineers work, you'll find an intuitive control surface and a conveniently angled rear connector panel, so you can do all your patching without ever leaving the mix position.

GB8 FEATURES:

- 16, 24, 32, 40 and 48 channel frame sizes
- 19 busses
- 4 full feature stereo channels
- 4 stereo returns
- 8 Aux sends (all are pre/post switchable)
- 8 sub groups (SWAP with all 8 Auxes)
- 11x4 output matrix
- Record output with limiter
- Alternate stereo output with limiter
- 1kHz oscillator
- Meterpod with 3 high definition LED VU meters (L/C/R)
- Internal jumpers switch pre-fade Aux sends to pre-EQ
- GB30 mic preamp and precision equalisation circuitry
- Direct outputs on every channel
- Talkback facility
- 100mm faders
- Switchable 48V phantom powering on every channel
- 18dB/octave high pass filter
- 4 mute groups
- 12-segment LED metering

DUAL-MODE TOPOLOGY, STRAIGHT FROM THE SOUNDCRAFT MH SERIES

GB4

With dual-mode topology derived from Soundcraft's acclaimed MH Series, the GB8 and GB4 consoles provide ideal live sound mixing solutions for medium-sized venues including clubs, theatres and houses of worship. With a single button press on the GB4 (4-bus), any of the first four Aux master controls can be swapped with the respectively numbered Group fader, providing the flexibility to work at FOH, Monitors, or perform both duties simultaneously.

The GB4 has L/C/R and eight Aux busses in addition to its four groups and, like the GB8, there are four mute groups and an output matrix for creating zoned mixes.

Like all GB series mixers, the GB4 uses GB30 mic preamps which use local linearisation techniques rather than global feedback to deliver an extremely open frequency response and excellent phase linearity. The GB30 EQ borrows the innovative designs developed for the Soundcraft MH4 console, providing GB users with the benefits of genuine high-end equalisation. And thanks to a meticulous 'ground-up' approach to circuit and mechanical design, the GB Series exhibits class-leading noise performance and channel isolation figures.

When it comes to recording a performance, the GB4 & GB8 are similarly well equipped with pre-/post-fader switchable direct outputs on every channel and a high-quality limiter on dedicated record outputs fed from the L-R mix bus.

GB4 FEATURES:

- 12, 16, 24, 32 and 40 channel frame sizes
- 15 busses
- 2 full feature stereo channels
- 2 stereo returns
- 8 Aux sends (4 are pre/post switchable)
- 4 sub groups (SWAP with Auxes 1-4)
- 7x4 output matrix
- Record output with limiter
- GB30 mic preamp and precision equalisation circuitry
- Direct outputs on every channel
- Talkback facility
- 100mm faders
- Switchable 48V phantom powering on every channel
- 18dB/octave high pass filter
- 4 mute groups
- 12-segment LED metering

Dedicated record outputs with a high-quality limiter are fed from the L-R mix bus.

SMALLER SCALE MIXING, WITHOUT THE COMPROMISES

GB2

Available in 16, 24 and 32 channel configurations, the GB2 is designed for installed sound and A/V applications that don't require all the sophisticated functionality of the GB4 and GB8. However the GB2 is a genuine GB Series console in every respect, with sound quality assured by GB30 Mic Pre and Equaliser designs, and reliability by the same rugged build quality that has made the GB4 and GB8 so dependable in demanding professional applications.

Along with six Aux busses and an integral 6 x 2 matrix, four subgroups are provided as two stereo pairs, with a unique facility for adjusting the width of the stereo signal across the stereo mix. The channel pan settings are retained on the group outputs, while the degree of stereo separation to the mix bus is independently adjustable from full stereo through to mono.

The GB2 also features two stereo input channels, with separate mic and line inputs. In normal use, the mic inputs are routed to the local channel and the line inputs act as a stereo return to the mix bus. Selecting the line input to the local channel overrides the mic inputs.

GB2 FEATURES:

- 16, 24, 32 channel frame sizes
- 12 busses
- 2 full feature stereo channels
- 2 stereo returns (on stereo channels)
- 6 Aux sends
- 4 sub groups (paired)
- 6x2 output matrix
- GB30 mic preamp and precision equalisation circuitry
- Direct outputs on every mono channel
- Talkback facility
- 100mm faders
- Switchable 48V phantom powering on every channel
- 100Hz high pass filter
- 12-segment LED metering
- Record output

Line inputs on the stereo channels can also act as a stereo return.

GB MIXING POWER IN A COMPACT RACK-MOUNTING FORMAT

GB2R

With a convenient, rack-mountable format, the GB2R packs GB Series features and sound quality into a compact mixer, ideal for use in fixed installations or a touring rack.

Available in 12 mono/2 stereo channel (GB2R 12/2) or 16 mono channel (GB2R 16) versions, the versatility of the GB2R is enhanced by a rotatable connector pod for top or rear cable entry, enabling use in a variety of mounting configurations.

Both models feature the same GB30 Mic Pre and Equaliser designs found in all GB mixers, ensuring exceptional sound quality. In addition, there are six Aux busses, switchable phantom power on every mic input and direct outputs for every channel.

Precision output level control is facilitated by dual faders on the master stereo output, and for capturing live performances phono connectors provide a high-quality direct recording solution.

Patching in outboard processors is made simple by two Stereo Returns with level controls to Mix or Sub Group Outputs (12/2 version only) and to Aux 1 & 2.

In addition to a stereo sub group, the GB2R 12/2 adds two fully-featured stereo input channels, each with two Mic inputs and separate Line inputs, switchable direct to Mix as another effects return, or into the local channel (overriding the Mic input).

GB2R FEATURES:

- 19" rack-mountable or tabletop mixer
- 12/2 channel version with 12 mono inputs and 2 stereo inputs, stereo Sub Group Output, Mix and Mono Sum Outputs – total inputs to mix 26
- 16 channel version with 16 mono inputs, Stereo Mix and Mono Sum outputs – total inputs to mix 22
- 8 (GB2R 16) or 10 (GB2R 12/2) busses
- 2 stereo inputs (GB2R 12/2 only)
- GB30 mic preamp and precision equalisation circuitry
- 6 Aux Outputs
- Direct Outputs on every mono channel
- 100mm faders
- Switchable +48V phantom power on every mic input
- 100Hz high pass filter
- 12-segment LED metering
- Internal switched mode power supply
- Record output

Rear connector panel can be rotated to facilitate use on a desktop or in a rack.

GB8 & GB4 INPUTS

GB8 GB4

GB4 Mono Input Channel

GB4 Stereo Input Channel

MONO INPUT MODULE

Mic Input
A balanced XLR connector accepts balanced or unbalanced mic signals.

Line Input
A balanced 1/4" jack accepts balanced or unbalanced line level sources, such as keyboards.

+48V Phantom Power
Phantom power is individually switchable on every channel, with front panel LED indication of status.

Phase Reverse
Phase reverse is individually switchable on every channel.

Input Stage
Precision, low noise mic preamps deliver continuously variable gain between 5dB and 60dB. A Peak LED indicates internal signal levels in excess of +18dBu.

High Pass Filter
A steep 18dB per Octave High Pass Filter is included straight after the preamp to reduce low frequency rumble on stage and clean up vocal performances.

Insert
A pre-fade, pre-EQ (but post-HPF) insert point is provided for patching in Limiters, Graphic Equalisers or other signal processors. It may also be used for recording.

Direct Output
A direct output is also available on every mono channel with individual pre/post fader switching situated on the rear panel. This allows the direct outputs to be equally useful for effects send applications or multitrack tape feeds.

EQ Section
GB Series consoles incorporate the GB30 4-band equaliser section - based on that used in the high-end MH Series. Both the HF and LF shelving sections have steeper slopes than usual which substantially reduces mid frequency harshness in the HF band and muddiness in the LF. This increase in “cleanliness” of response is further enhanced by an element of undershoot and overshoot in the boost/cut response. It has two swept mid frequencies carefully selected for optimum control during live performances. All bands provide 15dB of cut or boost. The Low frequency equaliser response shelves at 80Hz. The swept Lo Mid control operates between 80Hz and 1.9kHz. The swept Hi Mid control operates at frequencies between 550Hz and 13kHz. The fixed High frequency equaliser response shelves at 13kHz.

EQ Switch
The EQ section can be bypassed using the EQ switch, allowing comparison of treated and untreated sounds without having to reset controls.

Auxiliary Sends
The GB4 has 8 flexible Auxiliary sends which allow the choice of either monitor or effects orientated mixes. Auxes 1-4 are pre-fader and, in normal operation, are routed to the rotary Aux masters 1-4. In SWAP mode, they are routed to Group faders 1-4 and Group meters 1-4, ideal for monitor mixing applications. Auxes 5 to 8 are pre/post switchable - globally assigned selectable per Aux bus from the Master Section.

The GB8’s 8 Auxiliary sends (Fig. 1) are globally selectable per Aux bus between pre/post fade. The Auxes are routed to rotary Aux masters, which all feature SWAP mode.

Level Control and Routing
On the GB4, the signal on each fader can be routed to the L-R mix (via the Pan control), the C (mono) bus and Groups 1&2 and 3&4. On the GB8, the signal can additionally be routed to Groups 5&6 and 7&8 (Fig. 2).

Pan
Turning the pan control full left or right enables odd or even groups or the left or right Mix bus to be accessed individually.

Solo/PFL
Each channel can be soloed pre-fader, post-EQ to check levels. PFL status is indicated via a front panel LED.

100mm Fader
Professional grade, 100mm faders provide accurate, consistent control of audio levels and have superb cut-off performance.

Metering
A 4-segment LED display on each GB4/8 fader strip provides an instant reference for the signal level on that channel.

STEREO INPUT MODULE

The stereo inputs (2 on the GB4, 4 on the GB8) allow connection of stereo sources, or use as sophisticated effects returns. GB8 has four stereo inputs. The stereo input channels share all features with the mono input channels, with the exception of the following:

Connections
Each channel is equipped with both balanced jack and XLR pairs. The left or right input can be selected, if required, as a single, mono source to be routed to both paths. Alternatively both the left and right signals can be mono-summed.

EQ Section
The equaliser section provides 15dB of cut or boost at each of 4-bands: a HF shelf at 13kHz; Hi-Mid at 2.5kHz; Lo-Mid at 450Hz; and a LF shelf at 80Hz.

Fig.1 - GB4/8 Channel strip detail, Auxiliary Controls.

Fig.2 - GB4/8 Channel strip detail, Fader section.

GB2 & GB2R INPUTS

GB2 GB2R

MONO INPUT MODULE

Mic Input
A balanced XLR connector accepts balanced or unbalanced mic signals.

Line Input
A balanced 1/4" jack accepts balanced or unbalanced line level sources, such as keyboards.

+48V Phantom Power
Phantom power is individually switchable on every channel, with front panel LED indication of status.

Phase Reverse
Phase reverse is individually switchable on every channel.

Input Stage
Precision, low noise mic preamps deliver continuously variable gain between 5B and 60dB. A Peak LED indicates internal signal levels in excess of +18dBu.

High Pass Filter
A steep 18dB per Octave High Pass Filter is included straight after the preamp to reduce low frequency rumble on stage and clean up vocal performances.

Insert
A pre-fade, pre-EQ (but post-HPF) insert point is provided for patching in Limiters, Graphic Equalisers or other signal processors. It may also be used for recording.

Direct Output
A direct output is also available on every mono channel with individual pre/post fader switching situated on the rear panel. This allows the direct outputs to be equally useful for effects send applications or multitrack tape feeds.

Fig.1 - GB2R 12/2 Mono channel fader panel.

Fig.2 - GB2R 16 Mono channel fader panel.

Fig.3 - GB2R 12/2 Stereo channel input section.

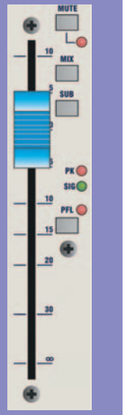


Fig.4 - GB2R 12/2 Stereo channel fader panel.

EQ Section
GB Series consoles incorporate the GB30 4-band equaliser section - based on that used in the high-end MH Series. Both the HF and LF shelving sections have steeper slopes than usual which substantially reduces mid frequency harshness in the HF band and muddiness in the LF. This increase in “cleanliness” of response is further enhanced by an element of undershoot and overshoot in the boost/cut response. It has two swept mid frequencies carefully selected for optimum control during live performances. All bands provide 15dB of cut or boost. The Low frequency equaliser response shelves at 80Hz. The swept Lo Mid control operates between 80Hz and 1.9kHz. The swept Hi Mid control operates at frequencies between 550Hz and 13kHz. The fixed High frequency equaliser response shelves at 13kHz.

EQ Switch
The EQ section can be bypassed using the EQ switch, allowing comparison of treated and untreated sounds without having to reset controls.

Auxiliary Sends
The 6 Auxiliary sends are pre fade (1 & 2), pre/post selectable (3 & 4) and post fade (5 & 6).

Level Control and Routing
On the GB2R the signal can be routed to the Stereo Mix and the Sub Group (12/2 model only). For GB2, the signal can be routed to the Stereo Mix, and Groups 1&2 and 3&4.

Pan
Turning the pan control full left or right enables odd or even groups or the left or right Mix bus to be accessed individually.

Solo/PFL
Each channel can be soloed pre-fader, post-EQ to check levels. PFL status is indicated via a front panel LED.

100mm Fader
Professional grade, 100mm faders provide accurate, consistent control of audio levels and have superb cut-off performance.

Metering
Both GB2 and GB2R input channels feature peak and signal leds.

STEREO INPUT MODULE - GB2 and GB2R 12/2 only

The 2 stereo inputs allow connection of stereo sources, or use as sophisticated effects returns. The stereo input channels share all features with the mono input channels, with the exception of the following:

Connections
Each channel is equipped with both balanced jack and XLR pairs. The left or right input can be selected, if required, as a single, mono source to be routed to both paths. Alternatively both the left and right signals can be mono-summed.

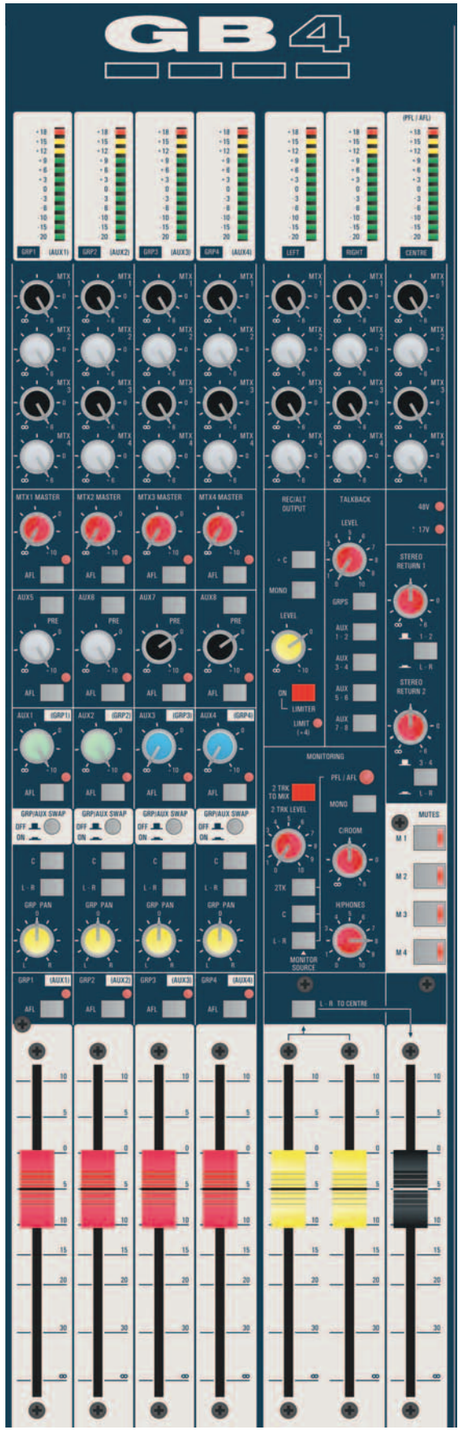
EQ Section
The equaliser section provides 15dB of cut or boost at each of 4-bands: a HF shelf at 13kHz; Hi-Mid at 2.5kHz; Lo-Mid at 450Hz; and a LF shelf at 80Hz.

Stereo Return
When the XLR/Mic input is selected to the channel, the Line input can be switched to mix as an effects return or as another input to mix. When the Line input is switched to the channel, the XLR/Mic input is disconnected.

GB2 Mono Input Channel

GB2 Stereo Input Channel

GB4 OUTPUTS & MASTER



GROUP SECTION

Group Outputs
Each Group has an impedance-balanced XLR output connector, allowing long cable runs on stage.

Insert Points
Pre-fade insert points are provided on jack connectors, for the connection of Limiters, Graphic Equalisers or other signal processors.

Group Metering
GB4 has four 12-segment peak reading bargraph meters which display Group (or Aux 1-4 in SWAP mode) output levels.

Matrix Assignment
Four rotary controls per Group allow individual assignment to Matrices 1-4.

Matrix Masters
The level at each Matrix output (balanced jack) on the rear panel is controlled by a rotary control, with a button for AFL.

Auxiliary Masters
The level at each Auxiliary output (balanced jack) on the rear panel is controlled by a rotary control with a button for AFL.

Group/Aux SWAP
GB4 has four push buttons which swap the functions of Auxiliary 1-4 master rotary controls and Group master faders. NB: The 12-segment peak reading bargraph meters always display the signal selected to the Group faders, i.e. Groups in normal operation, or Auxes when used in SWAP mode.

Routing
The signal on each Group fader can be routed to either the L-R mix (via the Pan control) or to the C (mono) bus.

100mm Group Faders
The Group faders provide 10dB of extra gain above the zero mark, whilst still ensuring smooth operation. Each Group is also equipped with AFL.

MASTER SECTION

Connections
L-R mix and C (mono) bus outputs appear on balanced XLR with jack insert points. The L-R mix is also provided on two pairs of balanced jack outputs and one pair of RCA/phono outputs. A balanced XLR input allows a talkback mic to be connected. Two control room outputs for engineer monitoring are available on impedance balanced 1/4" jacks.

2TRK Inputs
A pair of unbalanced -10dBv phono connectors labelled “2TRK In” allow pre-show music to be replayed. An independent 2 TRK rotary level control is also provided.

Rec/Alt Output
GB4 has a single Rec/Alt section. Outputs are provided on impedance balanced 1/4" jacks and unbalanced -10dBv phono connectors. They provide a post-fade send from the L-R mix. The C (mono) bus may be added and/or the mix can be mono summed. A rotary control governs level and a switchable limiter is provided.

Talkback Section
Once connected, the engineer’s talkback mic can be routed to all Groups and/or Aux 1-2, 3-4, 5-6 & 7-8. A rotary control governs talkback level.

Stereo Returns
GB4 has two stereo returns - provided for use with effects units, or as simple stereo instrument inputs. The rotary controls govern level. Ste Ret 1 and 2 can be routed to Groups 1/2 and 3/4 respectively, or the main L-R mix.

CONTROL ROOM SECTION

The control room section allows the engineer to monitor either the 2-track return, the C (Mono) Bus, or the Mix via the control room outputs or headphones. A headphone jack is provided for use with headphones with impedances of 100 Ohms or greater. Both the control room and 2-track return levels can be altered using the associated controls. It is also possible to replace the Mix output signal with the 2-track return by pressing “2 TRK TO MIX”. This allows easy playing of pre-show music at a single button press, without having to make any alterations to the band’s settings.

Metering
Three 12-segment Peak reading bargraph meters display L-R mix and C (mono) bus output levels when the appropriate control room selection is made. If any input or Auxiliary master is soloed then the PFL/AFL LED illuminates, and the master meters show PFL/AFL levels instead.

Matrix Assignment
Any of the four Group masters, Left, Right and C (mono) buses can be routed to any of the four matrix outputs via individual rotary controls.

100mm Master Faders
Mix and C (Mono) Output levels are controlled by custom-built 100mm long throw faders. The Mix outputs may be routed to the C (Mono) bus should only a mono PA be required, or an induction loop need to be fed.

PSU Indicators
A red LED illuminates if the console is powered up, showing the status of the +/-17v voltage rails.

Integral Power Supply
The console is fitted with a high-efficiency SMPS design (Switched Mode Power Supply) unit that makes for cooler operation and lighter weight. The PSU is capable of accepting a wide range of AC input voltages without any internal or external switch changes. An external DPS-3 power supply may be connected for redundancy operation.

GB4 Outputs & Master

GB8 OUTPUTS & MASTER

THE GB8 OUTPUTS & MASTER SECTION HAVE THE SAME FEATURES AS THE GB4, PLUS THE FOLLOWING PERFORMANCE ENHANCEMENTS.

GROUP SECTION

Group Metering
GB8 has 8 12-segment peak reading bargraph meters which display Group (or Aux 1-8 in SWAP mode) output levels.

Group/Aux SWAP
GB8 has eight push buttons which swap the functions of Auxiliary 1-8 master rotary controls and Group master faders. NB: The 12-segment peak reading bargraph meters always display the signal selected to the Group faders, i.e. Groups in normal operation, or Auxes when used in SWAP mode.

MASTER SECTION

Rec/Alt Output
GB8 features separate Record and Alternate output sections. Outputs are provided on impedance balanced 1/4" jacks and unbalanced -10dBv phono connectors. They provide a post-fade send from the L-R mix. The C (mono) bus may be added and/or the mix can be mono summed. A rotary control governs level and a switchable limiter is provided.

Talkback Section
GB8 additionally features a 1kHz oscillator with identical routing to the talkback.

Stereo Returns
GB8 has four stereo returns - provided for use with effects units, or as simple stereo instrument inputs. The rotary controls govern level. Ste Ret 1, 2, 3 and 4 can be routed to Groups 1/2, 3/4, 5/6 and 7/8 respectively, or the main L-R mix.

TRUE VU METERS

GB8 boasts 3 true VU ballistic (ANSI C16.5) LED meters, which display the left, right and C (Mono) outputs. The correct classic VU response is achieved by using 2nd order rectifier filters, not something you see every day!

GB8 Outputs & Master

GB2 OUTPUTS & MASTER

GB2 Outputs & Master

GROUP SECTION

Group Outputs
Each Group has an impedance-balanced XLR output connector, allowing long cable runs on stage.

Insert Points
Pre-fade insert points are provided on jack connectors, for the connection of Limiters, Graphic Equalisers or other signal processors.

Group Metering
Selectable 12-segment peak reading bargraph meters.

Matrix Assignment
One rotary control per Group allows individual assignment to Matrices 1-2.

Matrix Masters
The level at each Matrix output (XLR) on the rear panel is controlled by a rotary control, with buttons for AFL and Mute.

Auxiliary Masters
The level at each Auxiliary output (XLRs 1-4, balanced jacks 5-6) on the rear panel is controlled by a rotary control with a button for AFL.

Routing
The signal on each Group fader can be routed to the L-R mix.

Stereo Width
The channel pan settings are retained on the group outputs, while the degree of stereo separation to the mix bus is independently adjustable on rotary controls from full stereo through to mono.

100mm Group Faders
The Group faders provide 10dB of extra gain above the zero mark, whilst still ensuring smooth operation.

MASTER SECTION

Connections
L-R Mix and a mono sum output appear on balanced XLR with jack insert points on the L-R outputs. A balanced XLR input allows a talkback mic to be connected. Two control room outputs for engineer monitoring are available on impedance balanced 1/4" jacks. L and R signals may be fed to each of the 2 matrix busses.

2TRK Inputs
A pair of unbalanced -10dBv phono connectors labelled “2TRK In” allow pre-show music to be replayed. An independent 2 TRK rotary level control is also provided.

Rec Output
Recording outputs are provided on -10dBv phono connectors. They provide a post-fade send from the L-R mix.

Talkback Section
Once connected, the engineer's talkback mic can be routed to all Groups and/or Auxes. A rotary control governs talkback level.

Stereo Returns
Stereo returns are accommodated via the stereo inputs. These can be switched for simultaneous mic/stereo return use, or for line inputs (see inputs).

CONTROL ROOM SECTION

The control room section allows the engineer to monitor either the 2-track return, Groups 1&2 and 3&4, or the Mix via the control room outputs or headphones. A headphone jack is provided for use with headphones with impedances of 100 Ohms or greater. Both the control room and 2-track return levels can be altered using the associated controls. It is also possible to switch the 2-track return input to Mix, adding to whatever signal is already present on the mix output, by pressing “2 TRK TO MIX”. This allows easy playing of pre-show music at a single button press, without having to make any alterations to the band’s settings.

Metering
12-segment Peak reading bargraph meters can be selected to display 2-track return, Groups 1&2 and 3&4, or the Mix when the appropriate control room selection is made. If any input or Auxiliary master is soloed then the PFL/AFL LED illuminates, and the master meters show PFL/AFL levels instead.

100mm Master Faders
Output levels are controlled by a 100mm long throw mix fader. The Mix outputs may be routed to the C (Mono) bus should only a mono PA be required, or an induction loop need to be fed.

Integral Power Supply
The console is fitted with a high-efficiency SMPS design (Switched Mode Power Supply) unit that makes for cooler operation and lighter weight. The PSU is capable of accepting a wide range of AC input voltages without any internal or external switch changes. An external DPS-3 power supply may be connected for redundancy operation.

GB2R OUTPUTS & MASTER

GROUP SECTION - GB2R 12/2 Only

Sub Group Output
The Sub Group has an impedance-balanced XLR output connector, allowing long cable runs on stage.

Insert Points
Pre-fade insert points are provided on jack connectors, for the connection of Limiters, Graphic Equalisers or other signal processors.

Group Metering
Selectable 12-segment peak reading bargraph meters.

Auxiliary Masters
The level at each Auxiliary output (XLRs 1-4, balanced jacks 5-6) on the rear panel is controlled by a rotary control with a button for AFL.

Routing
The signal on the sub group fader can be routed to the L-R mix, and/or mono-summed.

100mm Group Faders
The Group faders provide 10dB of extra gain above the zero mark, whilst still ensuring smooth operation.

MASTER SECTION

Connections
L-R Mix and a mono sum output appear on balanced XLR with jack insert points on the L-R outputs. Two control room outputs for engineer monitoring are available on impedance balanced 1/4" jacks.

2TRK Inputs
A pair of unbalanced -10dBv phono connectors labelled “2TRK In” allow pre-show music to be replayed. An independent 2 TRK rotary level control is also provided.

Auxiliary Masters
The level at each Auxiliary output (XLRs 1-4, balanced jacks 5-6) on the rear panel is controlled by a rotary control with a button for AFL.

Rec Output
Recording outputs are provided on -10dBv phono connectors. They provide a post-fade send from the L-R mix.

Stereo Returns
Two stereo returns are available with Level controls to Mix, Aux 1 and Aux 2, and on the 12/2 model to sub group.

CONTROL ROOM SECTION

The control room section allows the engineer to monitor either the 2-track return, Mix or Sub Groups (12/2 model only) via the control room outputs or headphones. A headphone jack is provided for use with headphones with impedances of 100 Ohms or greater. Both the control room and 2-track return levels can be altered using the associated controls. It is also possible to switch the 2-track return input to Mix, adding to whatever signal is already present on the mix output, by pressing “2 TRK TO MIX”. This allows easy playing of pre-show music at a single button press, without having to make any alterations to the band’s settings.

Metering
12-segment Peak reading bargraph meters can be selected to display 2-track return, Mix or Sub Group (12/2 model only) when the appropriate control room selection is made. If any input or Auxiliary master is soloed then the PFL/AFL LED illuminates, and the master meters show PFL/AFL levels instead.

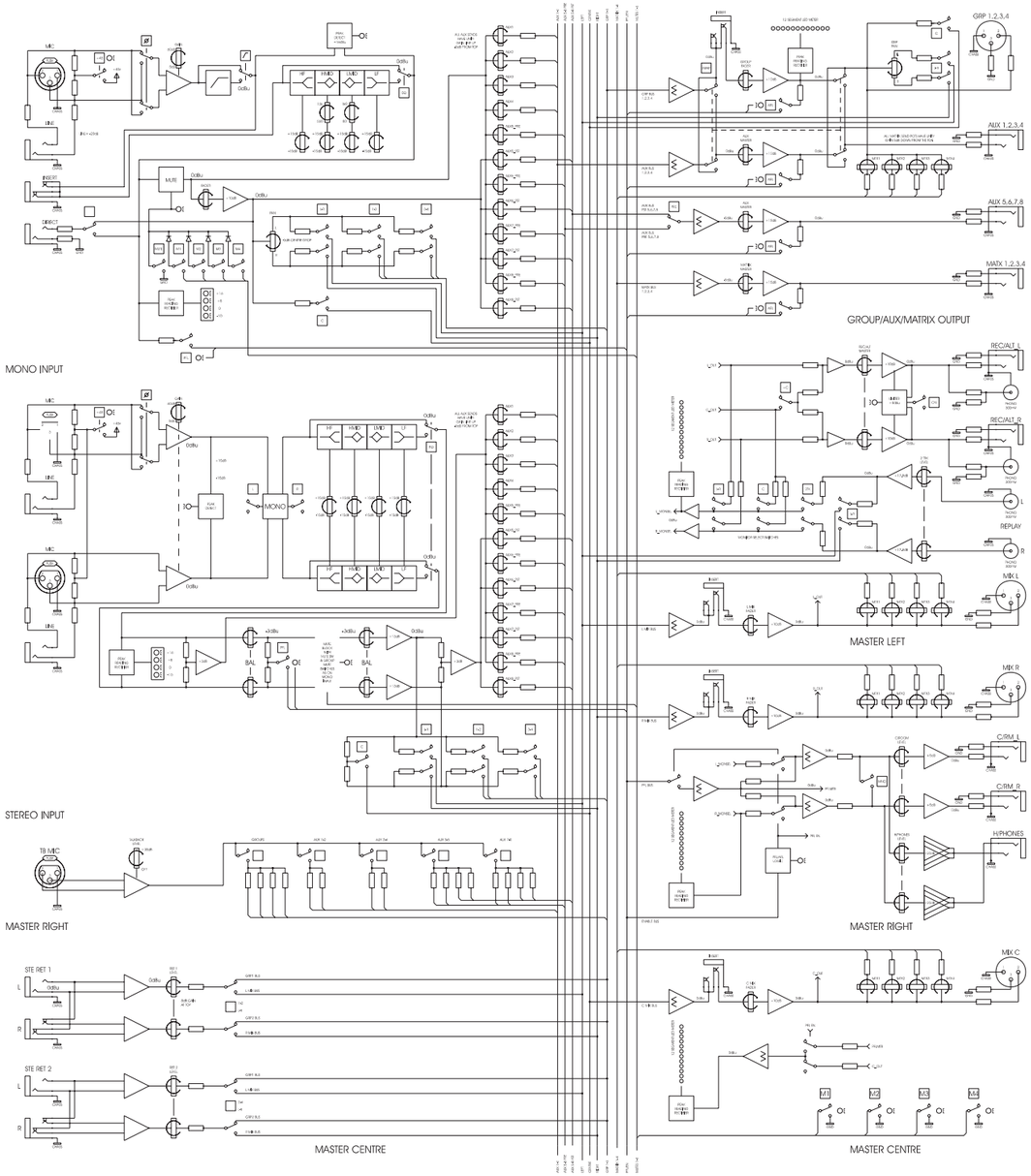
100mm Master Faders
Output levels are controlled by dual 100mm long throw mix faders.

Integral Power Supply
The console is fitted with a high-efficiency SMPS design (Switched Mode Power Supply) unit that makes for cooler operation and lighter weight. The PSU is capable of accepting a wide range of AC input voltages without any internal or external switch changes.

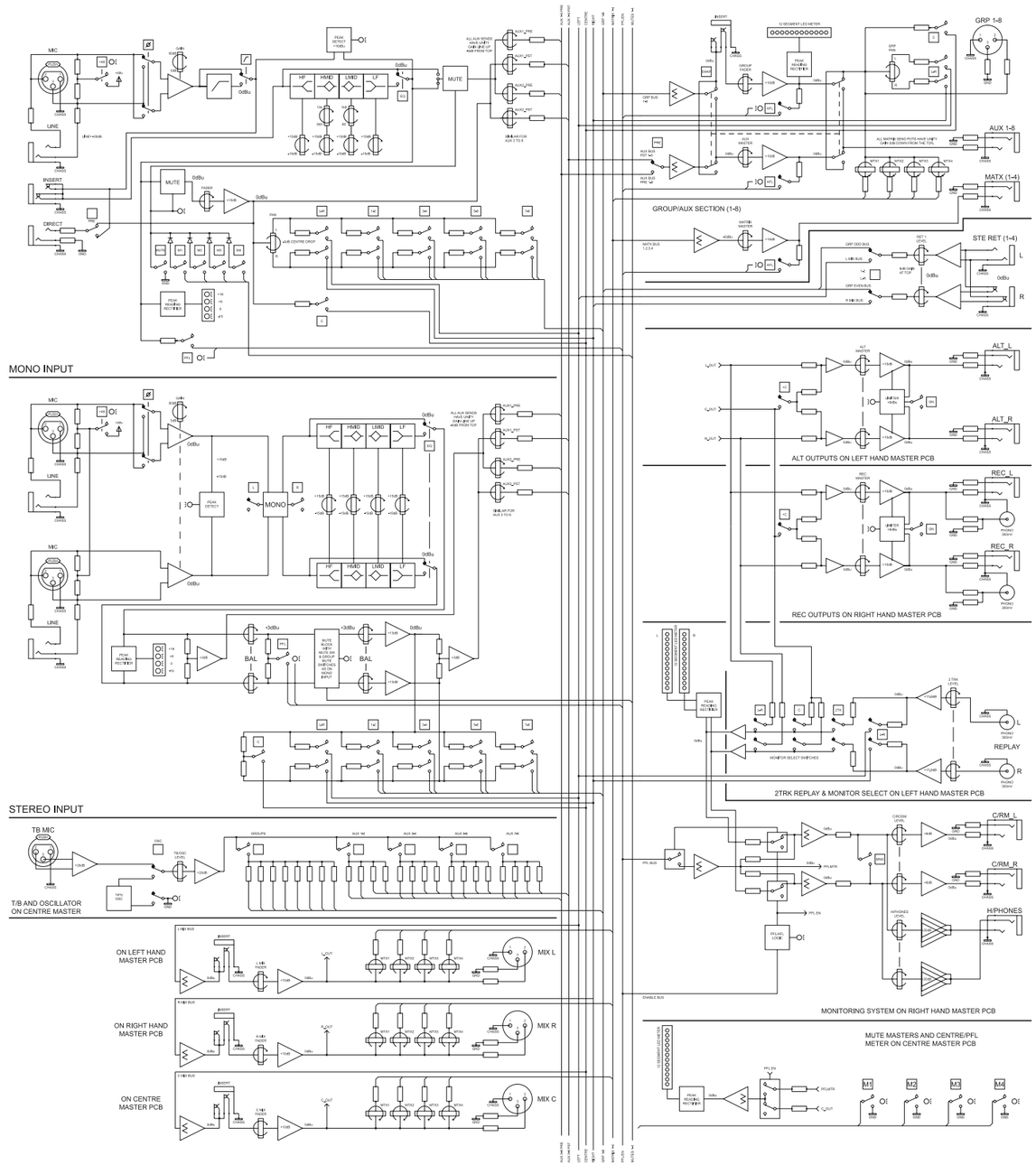
GB2R 12/2 Outputs & Master

GB2R 16 Outputs & Master

GB4 SYSTEM BLOCK DIAGRAM

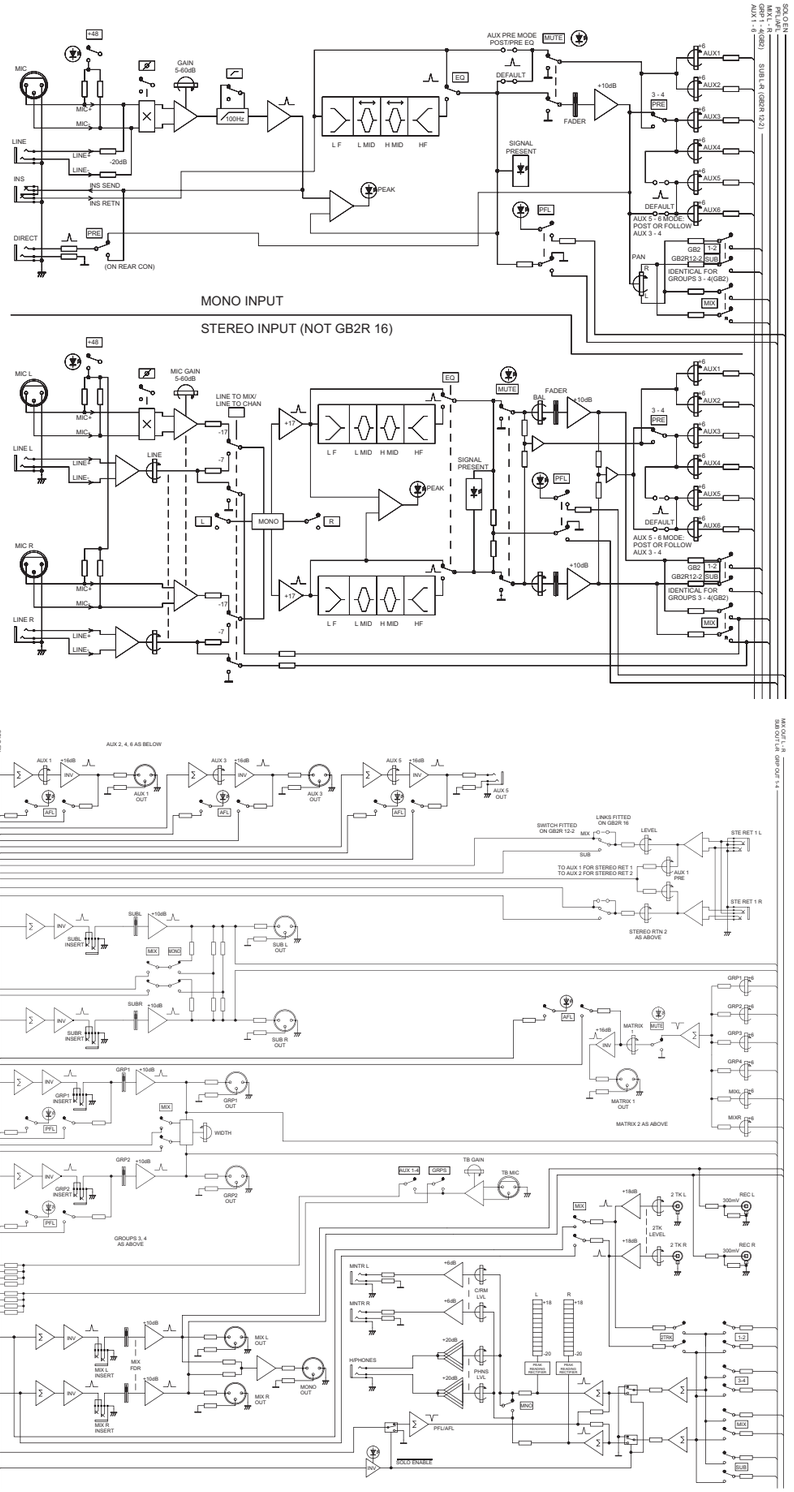


GB8 SYSTEM BLOCK DIAGRAM



GB2/GB2R SYSTEM BLOCK DIAGRAMS

GB2 GB2R



TOP PANEL, CONNECTORS, DIMS & WEIGHTS

GB8/GB4/GB2 OVERHEAD VIEW

NB: GB8 32 channel model shown. GB4 and GB2 Channel and Outputs & Master section differences are highlighted in the preceding pages.

GB2R OVERHEAD VIEW

NB: GB2R 16 shown.

REAR PANEL CONNECTIONS

NB: GB8 32 channel model shown.

REAR PANEL CONNECTIONS

NB: GB2R 12/2 shown.

DIMENSIONS & WEIGHTS

GB8

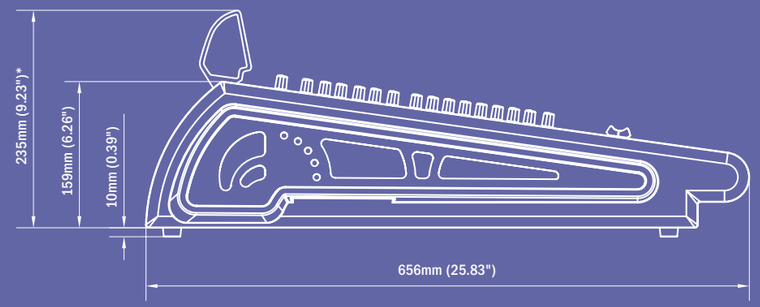
Frame Size	Width	Weight
16 Ch	984mm (38.74")	25kg (55.1lbs)
24 Ch	1208mm (47.56")	30kg (66.1lbs)
32 Ch	1442mm (56.77")	35kg (77.2lbs)
40 Ch	1666mm (65.59")	40kg (88.2lbs)
48 Ch	1889mm (74.37")	45kg (99.2lbs)

GB4

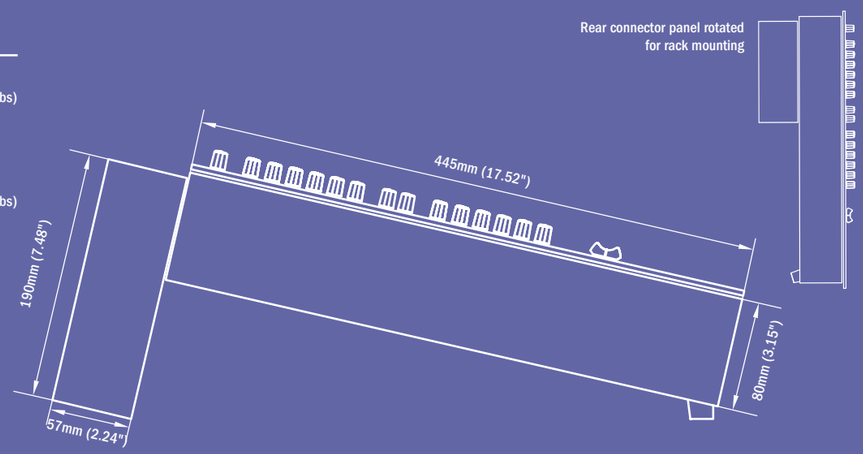
Frame Size	Width	Weight
12 Ch	730mm (28.73")	20kg (44.1lbs)
16 Ch	842mm (33.13")	22kg (48.5lbs)
24 Ch	1065mm (41.93")	27kg (59.5lbs)
32 Ch	1300mm (51.17")	32kg (70.5lbs)
40 Ch	1523mm (59.96")	37kg (81.6lbs)

GB2

Frame Size	Width	Weight
16 Ch	790mm (31.10")	22kg (48.5lbs)
24 Ch	1013mm (39.88")	25kg (55.1lbs)
32 Ch	1247mm (49.09")	30kg (66.1lbs)



*NB The Meterpod is only available on the GB8

GB2R

	Width	Weight
GB2R 12/2	483mm (19") with rack ears 440mm (17.32") without rack ears	12.5kg (27lbs)
GB2R 16	483mm (19") with rack ears 440mm (17.32) without rack ears	12.5kg (27lbs)